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| 09/737,276 | 12/13/2000 | Thomas J. Kolze | 36898/LTR/B600 | 7915 |
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| CHRISTIE, PARKER & HALE, LLP | | | DUONG, FRANK | |
| PO BOX 7068 | | | ART UNIT | PAPER NUMBER |
| PASADENA, CA 91109-7068 | | | 2666 | |

DATE MAILED: 02/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/737,276

Applicant(s)

KOLZE, THOMAS J.

Examiner

Frank Duong

Art Unit

2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 32 is/are allowed.
- 6) ☒ Claim(s) 18-31 and 33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is a response to communications dated 12/20/05. Claims 18-33 are pending in the applications.

Specification

2. The amendment filed 03/07/05 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: paragraph inserted beginning at page 25, line 30, *"As the CM is initialized, on two channels – one wide band and one narrowband – the parameters applicable to these two channels are received from the CMTS and are both stored in RAM 268 so they are available to the CM without additional initialization"* and paragraph, beginning on page 26 having the description starting with *"At any rate, one set of parameters stored in RAM 268 is used to control the upstream burst profile for short data packets and another set of parameters stored in RAM 268 is used to control the upstream burst profile for long data packets, as described in connection with block 910 above"* .

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

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art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 18-31 and 33 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There is no support for the claimed limitations of *"concurrently storing at the CM a first set of parameters for transmission of data packets having the first property on a first carrier and a second set of property on a second set of carrier"*, as recited in claims 18-30; *"a memory that concurrently stores at the CM wide-band ranging data for transmission over a wide band and narrow-band ranging data for transmission over a narrow band"*, as recited in claim 31.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 18-26 and 29-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Horton, Jr. et al (USP 6,236,678) (hereinafter "Horton").

Regarding **claim 18**, in accordance with Horton reference entirety, Horton discloses a method for transmitting data between a cable modem (CM) and a cable modem termination system (CMTS) (Fig. 1), the method (Fig. 6) comprising:

receiving at the CM data packets to be transmitted to the CMTS, the data packets having different first *(being sent one time in a contiguous group of minislots)* and second properties *(being sent in two or more groups of minislots)* (col. 6, lines 33-37 or Fig. 6; block 62 and col. 7, line 63 and thereafter);

concurrently storing (Fig. 5; block 56 and col. 5, lines 65-66 and thereafter) at the CM a first set of parameters *(burst profiles)* for transmission of data packets having the first property on a first carrier and a second set of parameters for transmission of data packets having the second property on a second carrier (col. 6, line 28 and thereafter); and

transmitting (Fig. 5; block 50) either data packets having the first property over the first carrier using the first set of parameters *(a contiguous group of minislots)* or data packets having the second property over the second carrier using the second set of parameters *(two or more groups of minislots)* (col. 6, lines 43-59 and thereafter).

Regarding **claim 19**, in addition to features recited in claim 18 (see rationales discussed above), Horton further discloses receiving assignments of the first and second carriers from the CMTS, the sets of parameters from a CMTS responsive to a request from the CM *(grant message indicating one or more groups of minislots)* (col. 6, lines 40-59).

Regarding **claim 20**, in addition to features recited in claim 19 (see rationales discussed above), Horton further discloses in which the first property comprises long data packets (*packets required two group of minislots*) and the second property comprises short data packets (*packets required one group of minislots*) (*col. 6, lines 40-59*).

Regarding **claim 21**, in addition to features recited in claim 19 (see rationales discussed above), Horton further discloses in which the first and second sets of parameters include different ranging data individual to the respective channels (*col. 6, lines 26-33 and thereafter*).

Regarding **claim 22**, in addition to features recited in claim 19 (see rationales discussed above), Horton further discloses in which the first and second sets of parameters additionally include different transmission signal levels individual to the respective channels (*col. 6, lines 26-33 and thereafter*).

Regarding **claim 23**, in addition to features recited in claim 19 (see rationales discussed above), Horton further discloses in which the first and second sets of parameters additionally include different equalization settings individual to the respective channels (*col. 6, line 26 and thereafter, a burst profile downstream sent by the CMTS is discussed. It is inherent there is equalization settings in the downstream burst profile*).

Regarding **claim 24**, in addition to features recited in claim 20 (see rationales discussed above), Horton further discloses alternately transmitting digital signals at a high symbol rate over the wide band channel and digital signals at a low symbol rate

over the narrow band channel (*col. 3, line 64-65 and thereafter, cable modem uses either QPSK (narrow band channel) and 16 QAM (wide band channel) are discussed*).

Regarding **claim 25**, in addition to features recited in claim 24 (see rationales discussed above), Horton further discloses transmitting the ranging data to the modem responsive to a request therefrom (*col. 6, lines 5-10 and thereafter*).

Regarding **claim 26**, in addition to features recited in claim 25 (see rationales discussed above), Horton further discloses in which the upstream transmission signal levels are stored individual to the respective channels (*col. 6, lines 5-33 and thereafter*).

Regarding **claim 29**, in addition to features recited in claim 18 (see rationales discussed above), Horton further discloses in which carrier frequencies individual to the respective channels are stored (*col. 3, lines 23-30 and col. 6, lines 5-33 and thereafter*).

Regarding **claim 30**, in addition to features recited in claim 18 (see rationales discussed above), Horton further discloses transmitting from the CMTS MAP information elements that define time slots (*col. 5, lines 51-54 and thereafter*).

(note: As per claims 27-28, 31 and 33, due to the problem discussed in the 112, first paragraph rejection above, there is no art to determined their allowability at this time)

Allowable Subject Matter

5. Claim 32 is allowed.
6. The following is a statement of reasons for the indication of allowable subject matter:

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The prior art of record, considered individually or in combination, fails to fairly show or suggest a claimed novel and unobvious limitation of “*transmitting long packets over a wide band channel and short packets over a narrow band channel*”, structurally and functionally interconnected with other limitations in a manner as recited in claim 32 and outstandingly pointed out in the Applicant's Remarks in the response filed 12/20/05.

Response to Arguments

7. Applicant's arguments filed 12/20/05 have been fully considered but they are not persuasive.

In the Remarks of the outstanding response, Applicant lists numerous points (points 1-10) with reference to the application and the provisional, which is incorporated therein by reference and asserts the subject matters added in the response filed 06/14/05 satisfies the 35 USC 132(a) and 35 USC 112, first paragraph written description requirements.

In response Examiner respectfully disagrees and asserts the matters under 35 USC 132(a) and 35 USC 112, first paragraph written description requirement has not overcome for the following rationales:

In point 1, Applicant states “... a copy of which is enclosed for the examiner's convenience.” There is no copy provided.

In point 2, Applicant states “[The] *term “ranging data” as used in the application is synonymous with “burst profile parameters” (page 2, line 7)*”. This is not true. Page 2,

line 7, verbatim, simply states “[Generally] a CM is initialized or ranged on a single channel, using burst profiles optimized for these initialization purposes”.

Point 4 states, Applicant states “[The] ranging data (burst profiles parameters) are stored in and retrieved from RAM 268 (page 22, line 23)”. From the listed points, especially point 4 above and point 6, Applicant concludes “[With] reference to the above points, to maintain ranging on two channels (point 6), two sets of parameters are of necessity concurrently stored in RAM 268 (point 4)”. In addition, the Applicant, based on the above points, also states “[For] these reasons, one of ordinary skilled in the art would recognize from the written description that applicants have possession of the invention”.

The conclusion is not true for the following rationales:

First, there is no corresponding between “ranging data” and “burst profile parameters”, as discussed above, anywhere in the original specification.

Second, even there is corresponding the above terms, one cannot arrive the conclusion of “to maintain ranging on two channels, two sets of parameters are of necessity concurrently stored in RAM 268” from the above points to satisfy the 35 USC 112, first paragraph requirements.

Furthermore, the test for new matter is not whether one of ordinary skilled in the art would recognize that from the Applicant’s points or arguments that Applicant has possession of the invention. MPEP 2163.06, at pages 213-216, provides “new or amended claims which introduce elements or limitations which are not supported by the as-filed disclosure violate the written description requirement. See, e.g., *In re Lukach*,

442 F.2d 967, 169 USPQ 795 (CCPA 1971)". Moreover, the Applicant fails to specifically point out the support for any amendments made to the disclosure.

In the Remarks of the outstanding response, pertaining the rejection of claims 18-32 under 35 USC 102 (e) as being anticipated by Horton et al (USP 6,236,678), Applicant argues the Norton reference fails to disclose "*that data packets be transmitted on two carriers/channels*", "*storing two sets of parameters or a memory for concurrently storing wide-band and narrow-band ranging data*", and "*transmitting long packets over a wide band channel and short packets over a narrow band channel*" as called for in claims 18, 31 and 32.

In response Examiner respectfully disagrees and asserts Norton, as clearly pointed out in the Office Action, does clearly anticipate the claims in the present condition. Here are the reasons:

A careful review of the claim language in claim 18, there is no specific language to distinguish "a first carrier" is different from "a second carrier". The "first carrier" is treated as the same as the "second carrier" in the Office Action in reading the Norton reference. Thus, the assertion that claim 18 calls for "*that data packets be transmitted on two carriers/channels*" is plainly wrong. Perhaps applicant refers to certain features that are disclosed in the present application but not recited in the reject claims in making the contention that the Horton reference fails to show certain feature of applicant's invention. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

As for the argument pertaining the limitation "*concurrently storing two sets of parameters or a memory for concurrently storing wide-band and narrow-band ranging data*", Norton, as clearly pointed out in the Office Action, disclosed just that. In accordance with Fig. 3; block 56 and col. 5, lines 43-60, 65-66 and thereafter, Norton shows RAM 56 and discloses RAM 56 for storing, among other things, time slot request messages and ranging and station maintenance request messages (for downstream), and MAP messages including minislot grant messages, UCD messages including burst profiles that can be rapidly accessed by CPU 54. The parameters are equated to correspond to "burst profiles" and they are concurrently stored in RAM 56.

The argument pertaining the limitation of "*transmitting long packets over a wide band channel and short packets over a narrow band channel*" as called for in claim 32 is moot. Claim 32 is allowed.

Examiner believes an earnest attempt has been made in addressing all of the applicant's arguments. Due to the arguments are not persuasive, the amendment fails to place the instant application in a favorable condition for allowance and the applied art still reads on the claimed invention, the rejection is maintained.

Conclusion

8. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank Duong whose telephone number is 571-272-3164. The examiner can normally be reached on 7:00AM-3:30PM, Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H. Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



February 23, 2006

FRANK DUONG
PRIMARY EXAMINER